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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,976	03/12/2002	Yoshiaki Koyama	020121	9675

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EXAMINER

LAVILLA, MICHAEL E

ART UNIT PAPER NUMBER

1775

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,976

Applicant(s)

KOYAMA ET AL.

Examiner

Michael La Villa

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Claims 1-5 and 14-19, in Paper No. 6 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
4. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-5 and 14-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - I. Regarding Claim 1, it is unclear whether the claimed "irregular surface" constitutes a projection or whether the irregular surface and projection requirements are separate, unrelated limitations.
 - II. Regarding Claim 3, it is unclear what is meant by the phrase "having a smooth grooves directed in direction of extruding." Are one or more than one grooves being claimed? It is unclear whether the claimed "irregular projections" must satisfy the width limitations of Claims 1 and/or 2.

- III. Regarding Claim 14, it is unclear what is meant by the phrase "and projections provided in adjoining disposition with said projection." Must all projections meet the width requirements of Claim 1? It is unclear what is the antecedent basis of the phrase "said projections." Does this include the projection defined by Claim 1? It is unclear what is meant by the phrases "being arranged axially," "in rows," and "at intervals circumferentially." What is the required disposition with respect to the metal member axis and surface of the member? Must the "intervals" be regular?
- IV. Regarding Claims 15, 17, and 18, it is unclear what is the antecedent basis of the phrase "said projections." Does this include only the new projections mentioned in Claim 14 or the one of Claim 1 as well?
- V. Regarding Claim 17, it is unclear what constitutes "at regular intervals."
- VI. Regarding Claim 18, it is unclear what constitutes "at irregular intervals," as opposed to at regular intervals. In what sense is there to be an irregularity? It is unclear what constitutes "out of circumferential alignment" and how this is consonant with being "at intervals circumferentially," as required by Claim 14.

Claim Rejections - 35 USC § 102

- 6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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7. A person shall be entitled to a patent unless –
8. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
9. Claims 1, 3, 5, 14, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiraoka et al. JP 01-317679. Hiraoka et al. teaches a metal body to be cast-wrapped having projections that form an irregular surface, wherein the projections have the claimed width requirements. The body is a cylindrical hollow body. Some projections may be considered as projections, as claimed, whereas other projections are considered as forming grooves. See Hiraoka et al. (Abstract; Figures 1, 5, 8, and 12 and relevant text).
10. Claims 1, 2, 3, 5, 14, 15, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Toyo Kogyo Co. JP 49-44857. JP 49-44857 teaches a metal body to be cast-wrapped having projections that form an irregular surface, where the projections have the claimed width requirements. The body is a cylindrical hollow body. Some projections may be considered as projections, according to the claimed requirements, whereas other projections are considered as forming grooves. See JP 49-44857 (Figures 1(d) and 2-4 and relevant text; and col. 3, line 32 through col. 4, line 40).
11. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kaku et al. USP 4,154,900. Kaku teaches a metal body having projections that form an

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irregular surface, where the projections having the claimed width requirements.

See Kaku et al. (Figures 2 and 3; col. 3, lines 27-55; and Claim 1).

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Olsson et al.

USP 4,576,875. Olsson et al. teaches a metal body having projections that form an irregular surface, where the projections having the claimed width requirements. See Olsson et al. (Abstract; Figures 1 and 3; col. 2, lines 39-60).

13. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Soell

et al. USP 6,050,323. Soell teaches a metal body having projections that form an irregular surface, where the projections having the claimed width requirements and are tapered. See Soell (Figure 2; col. 3, line 55 through col. 4, line 7).

Allowable Subject Matter

14. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The subject matter of Claim 4 is not taught or suggested by the prior art of record or by the reviewed prior art. The claimed projection structure is not taught or suggested.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (703) 308-4428. The examiner can normally be reached on Monday through Friday.
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
17. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Michael La Villa
October 19, 2003

A handwritten signature in black ink, appearing to read 'La Villa', with a stylized, cursive script.